

EN

USER MANUAL



THE REAL
FEEL FORCE

QS DD-20

Qubic System is not only motion platforms, from now it is also a wide range of sim accessories. The QS-DD-20 is an extraordinary direct drive wheelbase intended, but not exclusively, to be used with Qubic System motion cockpits. QS-DD-20 includes all necessary sockets to connect Qubic System's steering wheel controller. This perfect direct drive base contains all necessary wiring and accessories needed for a fully immersive experience.

Join our sim racing channel at the Qubic System YouTube
<https://www.youtube.com/c/QubicSystem>



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1. DEVICE DESCRIPTION

The QS-DD-20 is a steering wheel controller and is intended to be used as steering controller for various simulations.

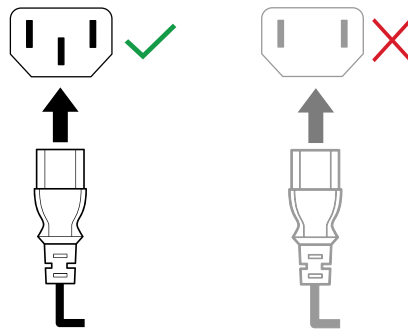
2. SAFETY PRECAUTIONS

INFO

Read all safety instructions before installing and using this product. Save this document for future reference. If ownership of this product is transferred, be sure to include this manual.

WARNING

Check if the power supply cable has grounding connection in the plug (with 3 pins). In order to reduce risk of electric shock **DO NOT** use plug without grounding connection (without center pin).



WARNING

QS-DD-20 is not intended for use by children under 16 years of age. Close supervision and safety instruction is required when this product is used by or near children or people with reduced physical, sensory or mental capabilities. Keep the packaging away from small children as it poses a suffocation risk.

WARNING

It is forbidden to interfere with the device to be compatible with other devices.

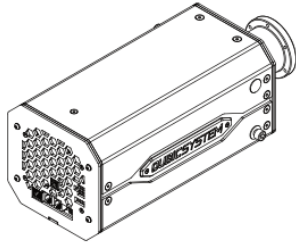
-
- Use the QS-DD-20 only for its intended purpose, according to instructions.
 - Unplug the QS-DD-20 from the power supply if it is not used for an extended period or when there is a need to perform hardware installation, maintenance, servicing or repairs.
 - Turn off the QS-DD-20 when it is not in use.
 - The QS-DD-20 was designed for indoor use only - **DO NOT** store or use the product outdoors.
 - Keep the QS-DD-20 away from the heat sources, high humidity, water, and other liquids. **DO NOT** store in cold place where water condensation may occur.
 - **DO NOT** disassemble the product. Any tampering with or altering the product will void the warranty, poses a serious risk of electric shock, and may irreparably damage the product.
 - Keep the power cord plug and the socket dry, clean and dust-free.
 - Protect the power cord from damage caused by being stepped on, rubbed against, or pinched.
 - **DO NOT** use the QS-DD-20 if the ambient temperature is below 4° Celsius (39° Fahrenheit) or above 45° Celsius (113° Fahrenheit).
 - **DO NOT** use the QS-DD-20 if it has been damaged, or any component is broken or missing. Please contact technical support.
 - **DO NOT** use attachments or replacement parts not recommended or approved by the manufacturer. If you have to replace the power cord use only certified one with the same rating as replaced one.
 - Do not grab, hold or insert anything into the steering wheel or driving shaft to stop the rotation.
 - Use Motion Lock button or switch off the power to stop the motions of the device.
 - Keep away cables, clothing, hair and other items that could tangle into the rotatory shaft.
 - At least once a month test if Motion Lock button is working correctly - after pressing there shall be no noticeable force feedback when moving the steering wheel.

WARNING

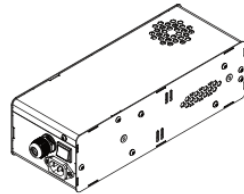
In case if the motions are not stopped and there is noticeable force feedback after pressing the Motion Lock button, **DO NOT** use the device and contact technical support.

3. LIST OF COMPONENTS

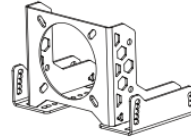
QS-DD-20 components:



**QS-DD-20
STEERING WHEEL**



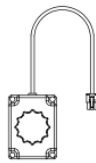
**QS-PA320-48
POWER BOX**



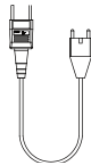
**MOUNTING
BRACKETS**



**ADJUSTABLE
HANDLES
(x 4)**



**MOTION LOCK
(x 1)**



**POWER
SUPPLY CABLE
(x 1)**



**USB CABLE
(x 1)**



**M-BUS
TERMINATOR
(x 1)**



**DIN 912 - M6 x 16
BOLT (x 4)**



**DIN 9021 - 6,4
WASHER
(x 8)**



**DIN 912 - M8 x 16
BOLT (x 4)**



**DIN 985 - M6
NUT
(x 4)**



**ISO 7380-1 - M6 x 20
BOLT
(x 2)**

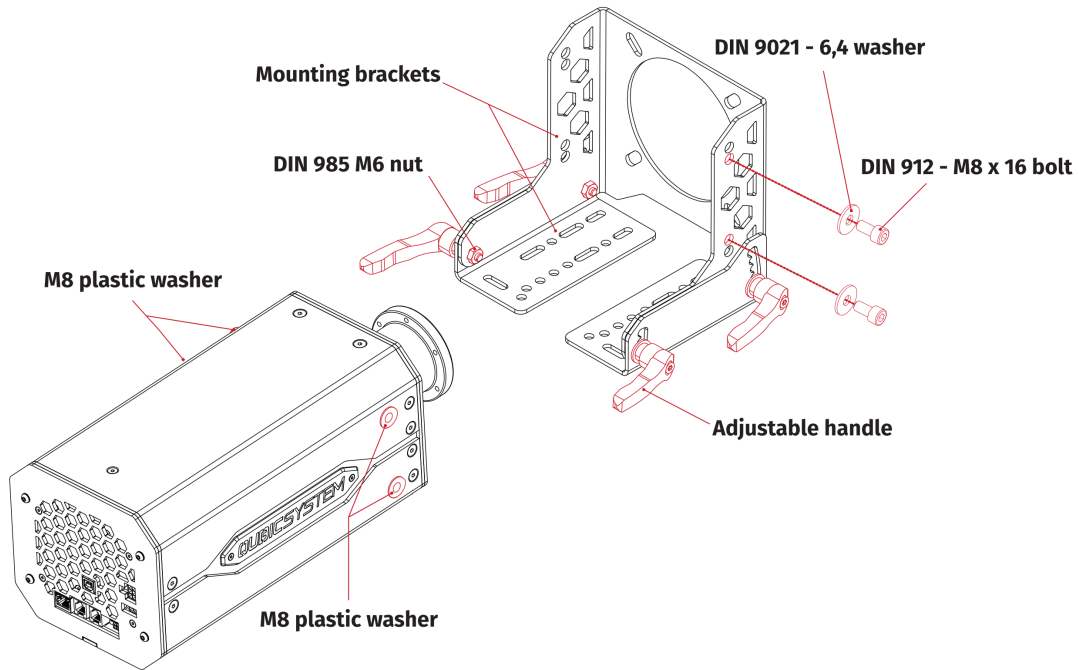


**DIN 125 - A 6,4
WASHER
(x 2)**

4. INSTALLATION

4.1. CONNECTING MOUNTING BRACKETS

In order to connect steering wheel module with mounting brackets connect it using side mounting points with M8 plastic washer inserted on both side as shown on the illustration:

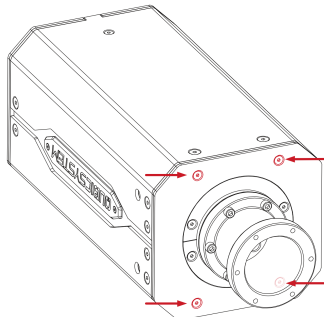


WARNING

DO NOT use front threaded holes to mount the steering wheel module to the cockpit. Front mounting holes are reserved for mounting additional accessories. Unscrew 2 x cover bolts and use ISO 7380-1 - M6 x 20 bolts with DIN 125 - A 6,4 washers for mounting accessories.

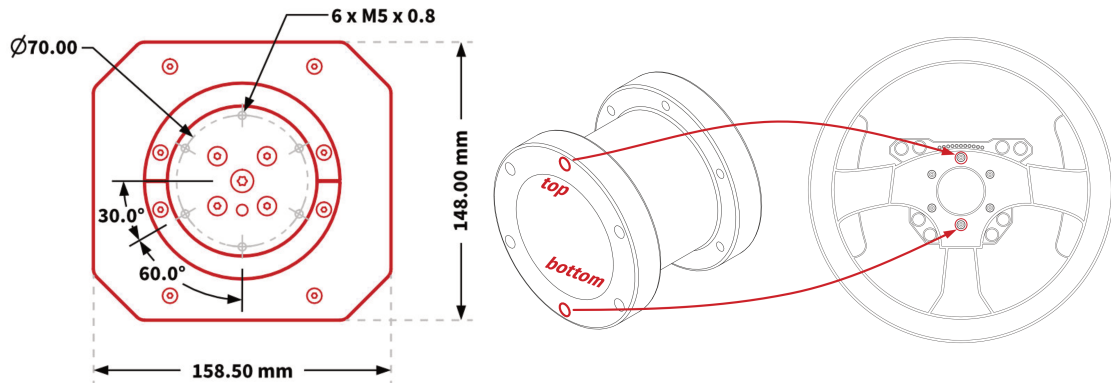
**THREADED HOLES RESERVED FOR MOUNTING
ACCESSORIES (DASHBOARD ETC.)**

**DO NOT USE FOR MOUNTING STEERING WHEEL
MODULE WITH THE COCKPIT**

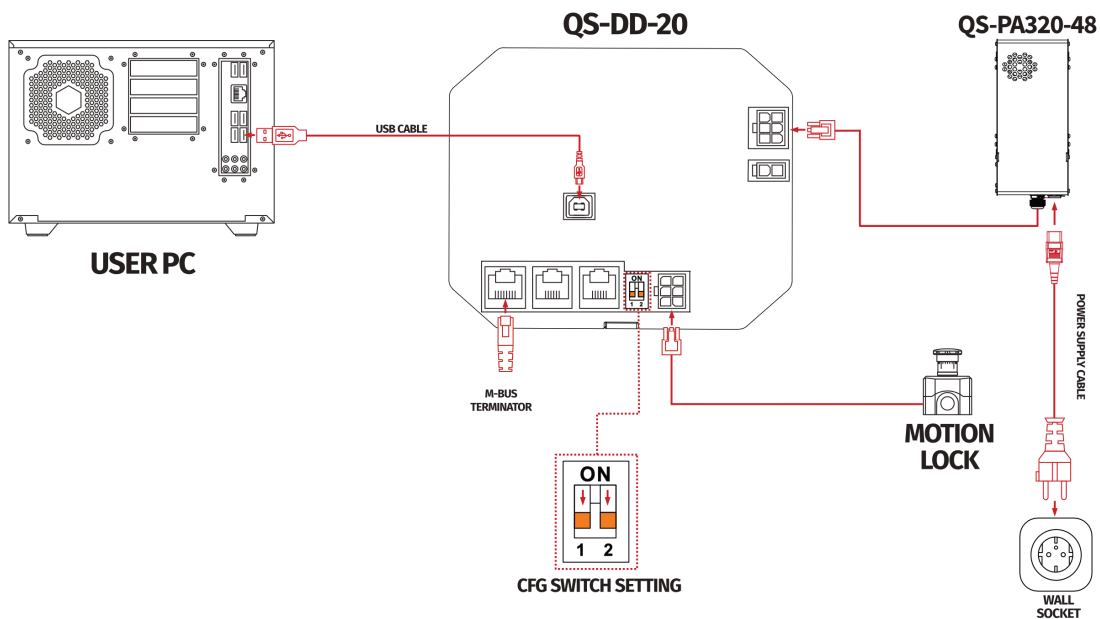


4.2. CONNECTING STEERING WHEEL

To install the steering wheel (not included in the set), connect it with the flange by screwing in the connection bolts provided with the steering wheel. Steering wheel dish size shall be ϕ 70 mm with 6 mounting holes. Align the top and bottom of the flange with the steering wheel as indicated on the **TOP** and **BOTTOM** stickers which are located inside the flange:



4.3. CONNECTING DEVICES



WARNING

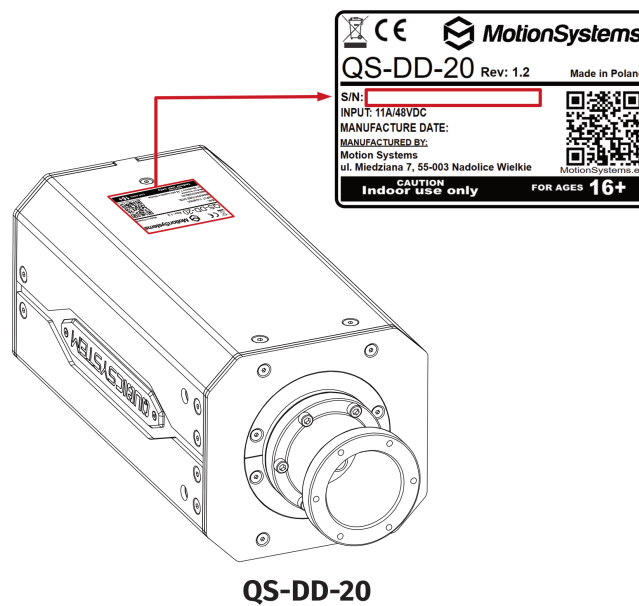
- When changing CFG switch setting the main power must be **SWITCHED OFF**
- When changing the CFG Switch setting **FIRMLY SET THE SWITCH** into lower or upper position. Do not leave the switch in the floating position (neither up or down position), otherwise the device will not work.

5. SOFTWARE

QubicManager is professional and specialized software for the platform and is click and play compatible with all major racing and flight titles. The QubicManager is a powerful engine, yet it is easy to use meaning you can adjust levels of motion, bumps, roll and pitch with a click of a button.

5.1. DOWNLOAD AND INSTALLATION

The **SERIAL NUMBER** required to access software download can be found on the underside of the steering wheel module housing. It's printed on the rating label in the **XXXXXX-XXXXXX-XXXXXX-XXXXXX** format.



Software installation procedure:

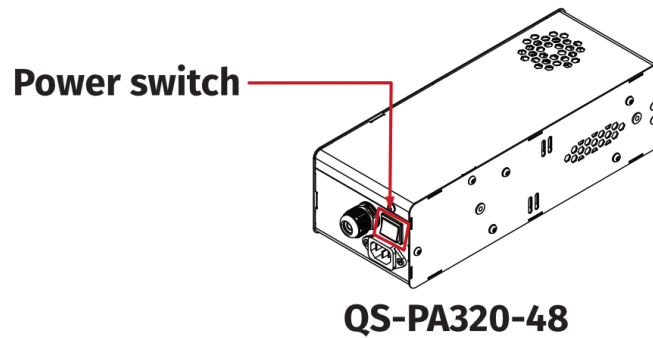
1. Connect the devices according to the interconnections scheme - see section 4.3.
2. Download QubicManager from [QubicSystem.com/Download](https://qubicSystem.com/Download)
3. Enter the serial number located on the identification label.

INFO

To check your serial number you can download a small program that can read code directly from your device when it is connected via USB : [Download link](#) or visit [QubicSystem.com/Download](https://qubicSystem.com/Download)

4. Proceed with the installation steps and launch the application.

5. Turn on the device by switching on the power switch button on the QS-PA320-48 power box.

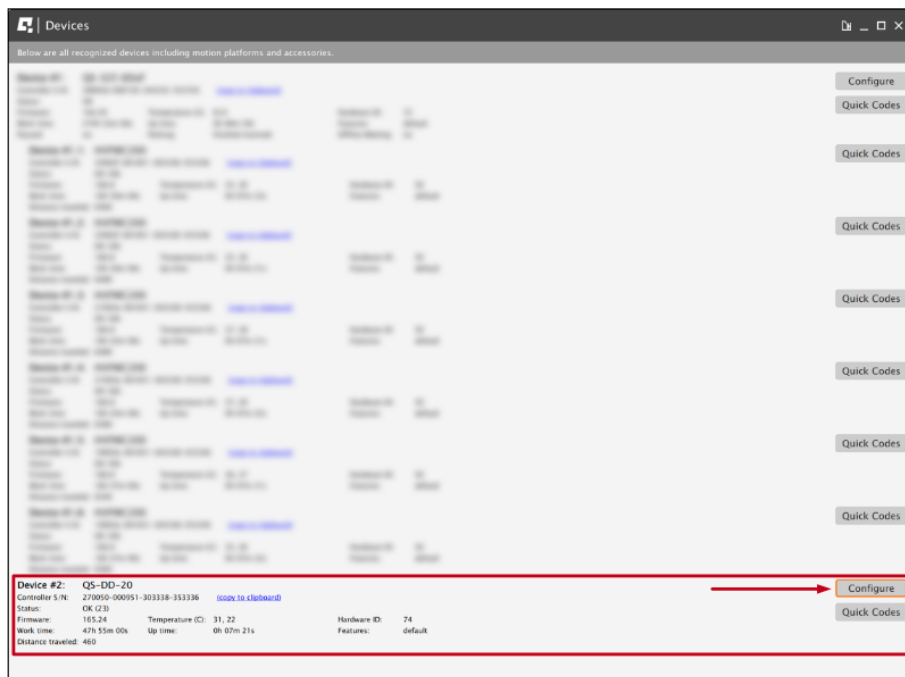


6. Check position of Motion Lock Switch, unpress if needed.
7. The QS-DD-20 will perform a start-up calibration.

WARNING

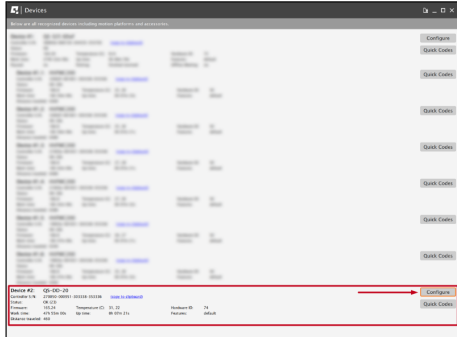
DO NOT touch the steering wheel during start-up calibration.

8. If QubicManager has recognized the QS-DD-20 correctly, the status of the device visible in the lower left corner will change to **Connected**.
9. Check **Action Center** on the right side panel for a list of actions that requires attention. It is possible to solve them one by one or by pressing the **Resolve All** button. Firmware update may require additional confirmation in the dialogue box.
10. Go to **Tools and Diagnostics** → **Devices** and select **Configure** to configure connected devices .

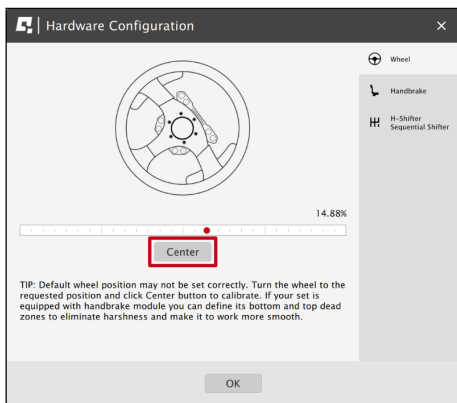


6. DEVICES CONFIGURATION

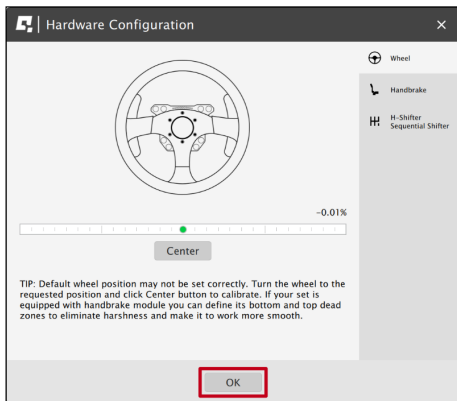
6.1. ADJUSTING STEERING WHEEL



1. To adjust the steering wheel select the **Configure** button in **Devices** tab of **QubicManager**. Steering wheel will be recognized as **QS-DD-20** in the devices list.



2. **Rotate the steering wheel** and adjust the center point to your preference, select **Center** button to save the position.



3. After setting center of the steering wheel to your preference select **OK** button, the configuration will be saved and used in the simulations.

INFO

Steering wheel controller arrives with pre-adjusted factory settings

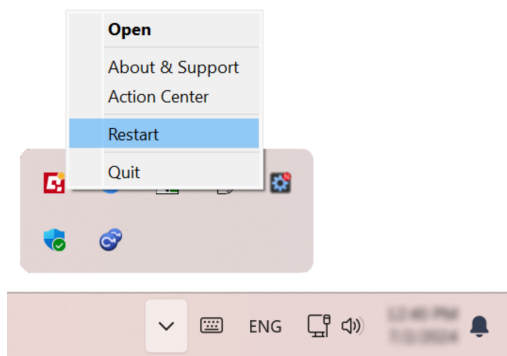
7. TROUBLESHOOTING

WARNING

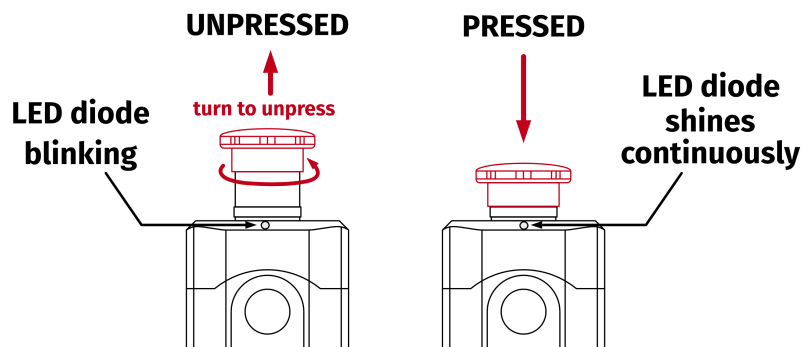
DO NOT attempt to do any repairs by yourself. It is dangerous and voids the warranty! Repairs should be consulted with technical support and then performed by a qualified technician.

Before contacting technical support, try this:

- Check Action Center in QubicManager.
- Check all cable connections in the device.
- Restart QubicManager application by right-click on the application icon in the system tray and selecting **Restart**:



- Check Motion Lock Switch position (it should be unpressed to activate the motion)



- Try different USB ports.
- If a problem occurred abruptly, it could be caused by a thermal protection. Turn off the QS-DD-20, disconnect it from power outlets and wait at least 15 minutes to let it cool down. Try turning it on again later.
- In case of any unclear electrical issues or strange behavior, contact technical support
- If the device suffers from abnormal work conditions, please immediately contact the distributor/reseller for technical support.

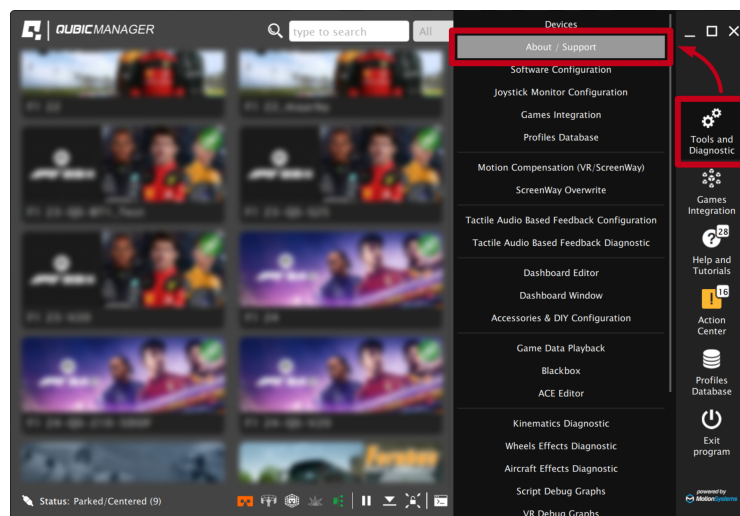
7.1. CREATING A SNAPSHOT

A snapshot is the easiest and fastest way to diagnose a problem. If you send in the zip file generated in the snapshot menu along with a description of the problem, technical support receives the necessary information about the product and its configuration. It can be then analyzed to provide the best solution.

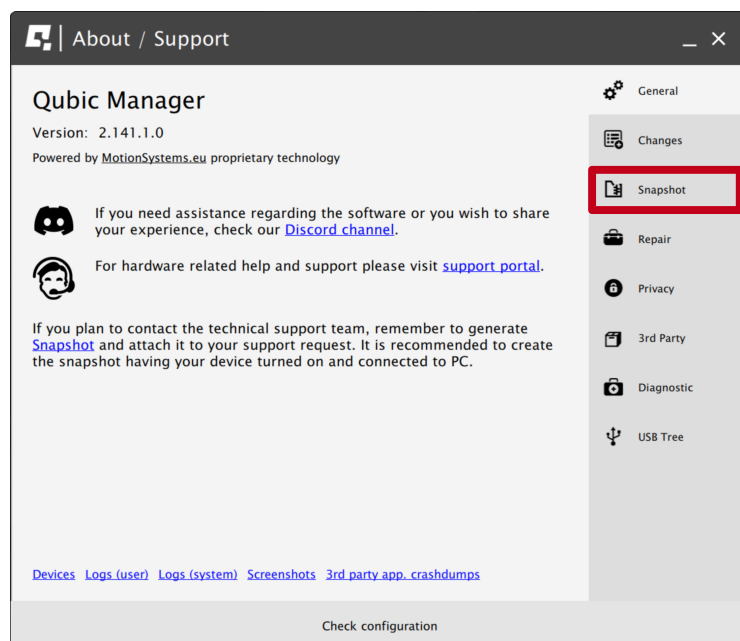
WARNING

The QS-DD-20 and all interconnected Power Cabinets **MUST BE** be powered up when creating the snapshot.

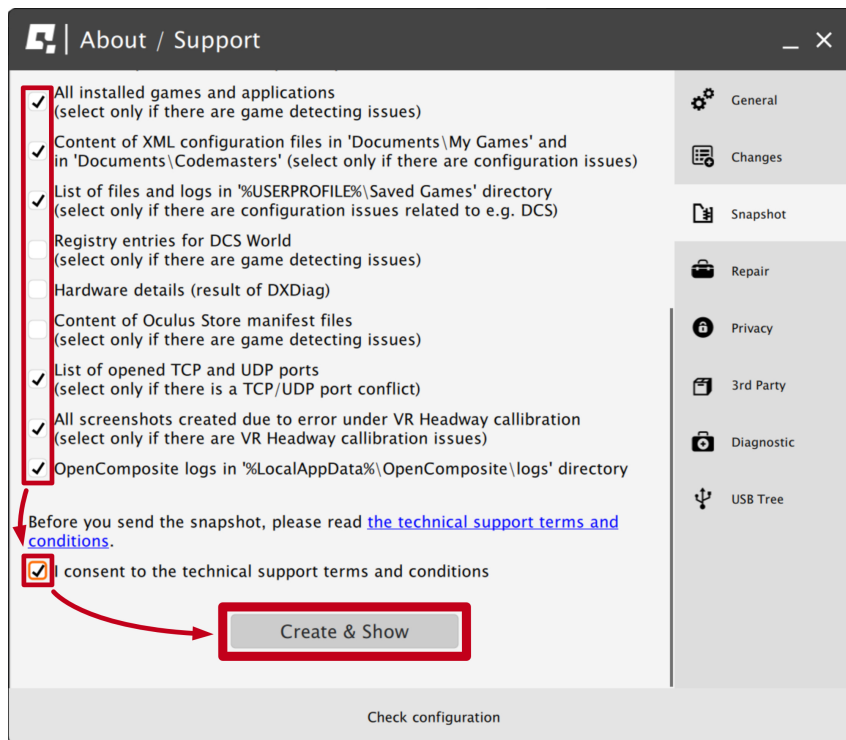
1. Open the main window of the QubicManager application.
2. Go to **Tools and Diagnostic** → **About / Support**.



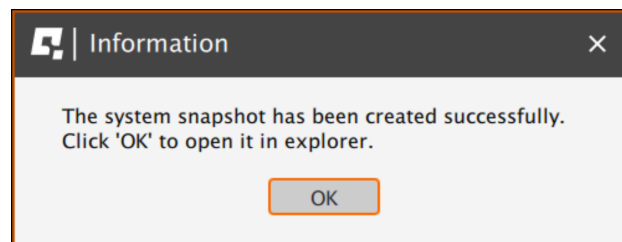
3. Open the **Snapshot** window:



4. Select data that will be included in the snapshot.
5. Scroll down, consent to the technical support terms and conditions and select **Create & Show**:



6. The snapshot has been created, click the **OK** button - the folder with the snapshot ZIP file will open.



7. Attach the snapshot ZIP file to your support request.

7.2. DISCORD CHANNEL

We strongly recommend joining our discord channel, where our growing community is sharing amazing tips and ideas of how to set up, use and tune the Qubic System products. You can also send questions for technical support or get answers directly from the community.

Join our discord channel by following the invitation link:

<https://discord.com/invite/tuAtybvTRn>

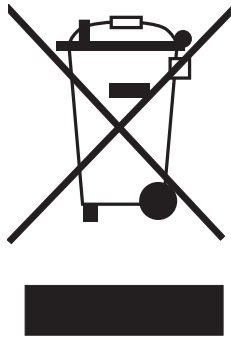


8. CONFORMITY INFORMATION



The QS-DD-20 meets the requirements of CE and relevant regulations of the EMC Directive 2014/30/EU and the RoHS Directive 2011/65/EU.

9. ENVIRONMENTAL IMPACT AND DISPOSAL



DO NOT dispose of this product with standard household waste, it shall be disposed at a collection point for waste electrical and electronic equipment for recycling.

QS-DD-20 is an advanced device and if stored or disposed of incorrectly, it could harm the environment or/and other people. Please contact your local authorities for information at the collection point nearest you.

10. WARRANTY

Qubic System warrants to the consumer that this product shall be free from defects in materials and workmanship, for a warranty period which corresponds to the time limit to bring an action for concerning this product. QS-DD-20 comes with two (2) years limited warranty from the original date of purchase.

For commercial customers, there is a one (1) year limited warranty, starting on the original date of purchase.

Within the warranty period, the product will be repaired or replaced free of charge, excluding shipping charges.

This warranty shall not apply:

- If the product has been modified, opened, altered, or has suffered damage as a result of inappropriate or abusive use, negligence, an accident, normal wear, or any other cause unrelated to a material or manufacturing defect (including, but not limited to, combining the QS-DD-20 with any unsuitable element, including in particular power supplies, chargers, or any other elements not supplied or approved by Motion Systems for this product).
- In the event of failure to comply with the instructions provided by technical support.
- To software, said software being subject to a specific warranty.
- To accessories (cables, cases, for example).
- If the product was sold at public auction or if the product has suffered damage as a result of force majeure: flood, fire, earthquake, storm.

This warranty is non-transferable. No new warranty period commences if the product is repaired or replaced. Your statutory rights towards the seller are not affected or restricted by this warranty. Motion Systems, and their partners are not liable for any indirect, incidental, or punitive damages from use of this product.

In case of malfunction during the warranty period immediately contact technical support.

11. COPYRIGHT

Qubic System is a trademark of Motion Systems. All rights reserved.

All the contents in this user manual are the intellectual property of Motion Systems. No part of this manual, including the products and software described in it, shall be modified or translated into any language without the prior written permission of Motion Systems. Specifications and information in this manual are subject to change at any time without obligation to notify any person of such revision or changes. Illustrations are not binding.

INFO

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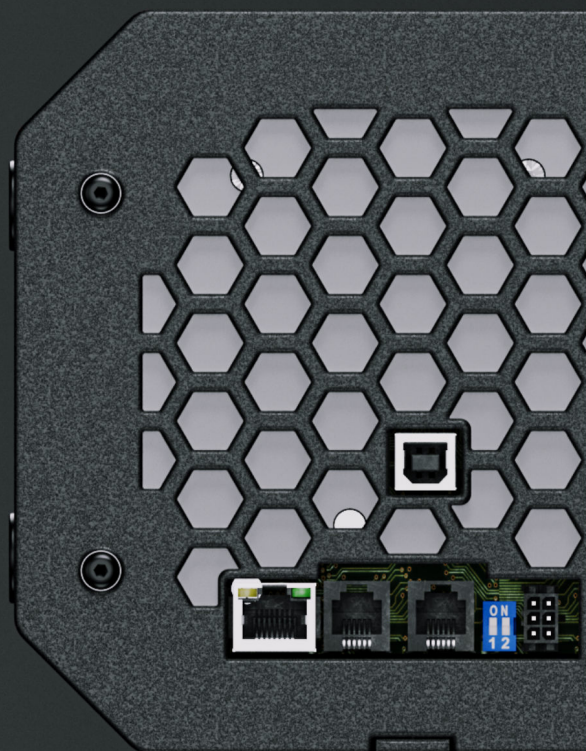
12. MANUFACTURER INFORMATION

Motion Systems
Miedziana 7 Street
55-003 Nadolice Wielkie
Poland



INFO

In support queries please contact your reseller.



Q5
DD-20



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